

02/20/02

10/07/02 U.S. PTO

EL 919311211US

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PTO/SB/05 (11-00)

Approved for use through 10/31/2002. OMB 0651-0032
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**UTILITY
PATENT APPLICATION
TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	02-013
First Inventor	Dieter GIRLICH
Title	Method and Device for Producing Reticular Structures
Express Mail Label No.	EL 919311211 US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☒ Applicant claims small entity status.
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 8]
(preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 2]
5. Oath or Declaration [Total Pages 3]
 - a. ☒ Newly executed (original or copy)
Copy from a prior application (37 CFR 1.63 (d))
 - b. ☐ (for continuation/divisional with Box 18 completed)
 - i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☒ Application Data Sheet. See 37 CFR 1.76

ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - a. ☐ Computer Readable Form (CRF)
 - b. Specification Sequence Listing on:
 - i. ☐ CD-ROM or CD-R (2 copies); or
 - ii. ☐ paper
 - c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement (when there is an assignee) ☐ Power of Attorney
11. ☒ English Translation Document (if applicable)
12. ☒ Information Disclosure Statement (IDS)/PTO-1449 ☒ Copies of IDS Citations
13. ☒ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Request and Certification under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent. Preliminary Amendment
17. ☒ Other: Marked-up Copy of Amended Sp & Claim

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP)

of prior application No. _____

Prior application information:

Examiner _____

Group Art Unit _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.**19. CORRESPONDENCE ADDRESS**
☐ Customer Number or Bar Code Label 24124 or ☐ Correspondence address below

Name			
Address			
City	State	Zip Code	
Country	Telephone	Fax	

Name (Print/Type)	Patricia M. Mathers	Registration No. (Attorney/Agent)	44,906
Signature	<i>Patricia M. Mathers</i>	Date	FEB. 2, 2002

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

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FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$ 370.00

Complete if Known

Application Number	
Filing Date	
First Named Inventor	Dieter GIRLICH
Examiner Name	
Group Art Unit	
Attorney Docket No.	02-013

METHOD OF PAYMENT

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number: 501 517
Deposit Account Name: BOHAN, MATHERS & ASSOCIATES

☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

☒ Applicant claims small entity status See 37 CFR 1.27

2. ☒ Payment Enclosed:

☒ Check ☐ Credit card ☐ Money Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity	Small Entity	Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
101	710	201	355			Utility filing fee	370.00
106	320	206	160			Design filing fee	
107	490	207	245			Plant filing fee	
108	710	208	355			Reissue filing fee	
114	150	214	75			Provisional filing fee	

SUBTOTAL (1) (\$ 370.00

2. EXTRA CLAIM FEES

Total Claims: 2 -20** = X =
Independent Claims: 12 - 3** = X =
Multiple Dependent: =

Large Entity	Small Entity	Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
103	18	203	9			Claims in excess of 20	
102	80	202	40			Independent claims in excess of 3	
104	270	204	135			Multiple dependent claim, if not paid	
109	80	209	40			** Reissue independent claims over original patent	
110	18	210	9			** Reissue claims in excess of 20 and over original patent	

SUBTOTAL (2) (\$ 0.00

*or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity	Small Entity	Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
105	130	205	65			Surcharge - late filing fee or oath	
127	50	227	25			Surcharge - late provisional filing fee or cover sheet	
139	130	139	130			Non-English specification	
147	2,520	147	2,520			For filing a request for <i>ex parte</i> reexamination	
112	920*	112	920*			Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*			Requesting publication of SIR after Examiner action	
115	110	215	55			Extension for reply within first month	
116	390	216	195			Extension for reply within second month	
117	890	217	445			Extension for reply within third month	
118	1,390	218	695			Extension for reply within fourth month	
128	1,890	228	945			Extension for reply within fifth month	
119	310	219	155			Notice of Appeal	
120	310	220	155			Filing a brief in support of an appeal	
121	270	221	135			Request for oral hearing	
138	1,510	138	1,510			Petition to institute a public use proceeding	
140	110	240	55			Petition to revive - unavoidable	
141	1,240	241	620			Petition to revive - unintentional	
142	1,240	242	620			Utility issue fee (or reissue)	
143	440	243	220			Design issue fee	
144	600	244	300			Plant issue fee	
122	130	122	130			Petitions to the Commissioner	
123	50	123	50			Petitions related to provisional applications	
126	240	126	240			Submission of Information Disclosure Stmt	
581	40	581	40			Recording each patent assignment per property (times number of properties)	
146	710	246	355			Filing a submission after final rejection (37 CFR § 1.129(a))	
149	710	249	355			For each additional invention to be examined (37 CFR § 1.129(b))	
179	710	279	355			Request for Continued Examination (RCE)	
169	900	169	900			Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$)

SUBMITTED BY

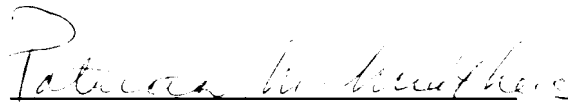
Name (Print/Type)	Patricia M. Mathers,	Registration No. (Attorney/Agent)	44,906	Telephone	(207) 773-3132
Signature	<i>Patricia M. Mathers</i>	Date	FEB. 26, 2002		

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I, Patricia M. Mathers, hereby state that I am fluent in the English and German languages and that I have reviewed the attached literal translation of the German patent application DE 199 39 155.6 with the German title "Verfahren und Vorrichtung zur Herstellung von Gitternetzstrukturen". I hereby attest that the attached translation is a true and literal translation of the German application.

February 19, 2002

A handwritten signature in cursive script, reading "Patricia M. Mathers", written in dark ink.

Patricia M. Mathers

Bohan, Mathers & Associates
371 Fore Street, Suite 202
Portland, Maine 04101

J1017 U.S. PTO
10/079331
02/20/02

I, Patricia M. Mathers, hereby state that I am fluent in the English and German languages and that I have reviewed the attached Annex (Beiblatt) to the International Preliminary Examination Report of the International Application PCT/DE00/02597 with the German title "Verfahren und Vorrichtung zur Herstellung von Gitternetzstrukturen". I hereby attest that the translation of the Annex is a true and literal translation of the German Beiblatt.

February 19, 2002



Patricia M. Mathers

Bohan, Mathers & Associates
371 Fore Street, Suite 202
Portland, Maine 04101

1. The closest prior art cited in the application, D1 US-A-3616841, particularly columns 2, 3, comprises, in addition to other steps, the following steps:
 - (1) Placing a polyurethane pre-structure in a casting box with open bottom ("casting flask");
 - (2) Infiltrating the foam pre-structure with a gypsum material;
 - (3) Setting the gypsum material;
 - (5) Removing the foam pre-structure by volatilizing the polyurethane at a temperature between 540 and 820°C, whereby the workpiece remains in the casting box;
 - (7) Infiltrating the still-warm gypsum foam-pre-structure with molten metal;
 - (8) After solidification of the metal, withdrawing the formed gypsum-metal-body from the casting box and removing the gypsum material.

The method according to Claim 1 is distinguishable from D1 in that the workpiece is withdrawn from the casting box, or the "openable container", **before** step (5) and placed in a "second, heat-resistant container" **after** step (5), that is, the method is distinguishable through the presence of the additional steps (4) and (6).

Novelty of the Claims 1 - 6 directed to the method is thus given. The additional steps (4) and (6) enable delay-free heating of the foam pre-structure and its rapid volatilization. Since none of the available documents teach or motivate this task or the means used in resolving the task, that is, do not teach or motivate one to apply steps (4) and (6), an inventive step is present.

Claim 7, directed to a device, claims only a "refractory container with a pour opening". The casting box of D1 can also be considered to be such a container. The dimensions of the inner space being "greater than that of the refractory pre-heated body" cannot distinguish the device from the prior art. Thus, the subject matter of Claim 7 is lacking in novelty as well as an inventive step.

2. The description has not been adapted to the changed claims (lacking support and therefore lack of clarity of the claims, Art. 6 PCT).

This also applies to the objective recited in the application, page 2, middle paragraph, which appears to have already been solved in D1.